



Appendix L

Rule Sets for Management Activity Levels

(Comparable to Portions of Eastside Appendix 3-3)

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Development of Forest and Range Clusters, and Their Relationship to the Alternatives

The Science Integration Team was asked by the EIS Team, based on their science findings, to identify the following:

1. Those places (on public lands) within the Interior Columbia Basin Ecosystem Management Area where ecological integrity is high, medium, and low.
2. Those places where there are opportunities to improve (restore) ecological integrity.
3. Those places where there are opportunities to produce commodities with a low risk to ecological integrity.

What the Science Team Did

Based on what they learned about past and present conditions, the science team rated areas as having high, medium, and low ecological integrity for the following: forestlands, rangelands, forestland hydrology, rangeland hydrology, and aquatics. The ratings were mapped for areas of approximately 800,000 to one million acres, or the size of river basins. There are 164 of these areas in the project area.

The following characteristics were used in determining the ratings:

Forestland	Tree stocking levels consistent with long-term disturbances typical for certain forest types; the amount and distribution of exotic species; the amount of snags and downed woody material; disruptions to the hydrologic regimes; the absence or presence of wildfire and its effect on the composition and patterns of forest types; and changes in fire severity and frequency from historical (pre-1900s) to the present. (See forestland integrity map.)
Rangeland	Historical overgrazing; disruptions to the hydrologic regimes; expansion of exotic species; changes in fire severity and frequency; increases in bare soils; and expansion of woodlands into rangelands. (See rangeland integrity map.)
Forestland Hydrology Functions	Functioning of biogeochemical cycles; surface and sub-hydrology: surface flows; sediment and erosion hazards; and presence of riparian vegetation. (See forestland hydrology integrity map.)
Rangeland Hydrologic Functions	Functioning of biogeochemical cycles; stream bank hydrology: stability; and resiliency to riparian disturbances. (See rangeland hydrology integrity map.)
Aquatic	Native fish diversity; presence of high quality, connected fish habitat; full complement of fish life histories; and current condition of fish populations. (See aquatic integrity map.)

Developing Story Lines

The five integrity ratings were integrated and combined into two ratings, one for forestlands and the other for rangelands. Further, the ratings for the 164 river basins were grouped into categories with similar characteristics or story lines. These groupings are referred to as “clusters.” (See forestland and rangeland cluster maps in Chapter 2.) Both the forestlands and rangelands have six groupings or clusters. General characteristics of the six clusters for the forestlands and rangelands are found in the following tables. The forestland and rangeland clusters were useful to the EIS team in prioritizing where management activities would occur across the landscape. Public opinion helped shape the EIS alternatives, which have different ways of addressing the Purpose and Need statement in Chapter 1.

How Ecosystem Integrity Was Used in the Development of Alternatives

Story lines developed through the process of identifying ecosystem integrity were used to help construct the alternatives. The story lines, or forest and rangeland clusters of watersheds with similar conditions, described three parameters. First, those places within the Columbia Basin on lands managed by the Forest Service or Bureau of Land Management were rated for ecological integrity as either high, medium, or low. Second, the story lines or clusters reflect opportunities to improve ecologic integrity. Third, clusters are identified where multiple-use benefits can be produced with low ecological risks.

Based on the conditions of the forest and rangeland clusters and the themes of the alternatives, management emphasis was assigned to the clusters by alternative. This included the priorities described in Chapter 1: conserve, restore or produce (C,R,P). Expected activities were then identified. These are described in the Ruleset in the accompanying pages. These activities, such as riparian restoration, timber harvest, and prescribed burning, were further defined in relation to expected levels of activity by alternatives. Using the No-Action alternative as a base, other alternatives were compared for expected levels of activity by cluster. These levels were defined and assigned a rating of high, medium or low. Levels of activity (H,M,L) described percent of certain areas expected for treatment by decade.

After reviewing the activity levels, the EIS team reconfirmed management emphasis. Each forest and rangeland cluster was assigned a final rating of C, R, P, or combinations of these. These descriptions of management priorities and emphasis reflect the conditions of the clusters, the themes of the alternatives, and the expected activity levels. Final assignments of management emphasis were made by cluster by alternative.

Activity tables were then developed to reflect assumptions of how alternatives would be implemented. These tables were derived by taking the acres by cluster and multiplying them by the percent of those lands where activities were expected to occur as described in the H,M, or L ranking in the Ruleset.

Since these activity tables were developed by cluster by alternative, a simple way of displaying overall activities by alternative was developed. Ranges of activities for affected clusters were aggregated. The midpoint on these ranges were identified, and for analysis purposes, a variance of +/-15% from the midpoint was assumed.

Activity tables were developed to aid analysis, not to assign or allocate specific actions. Management emphasis (C,R,P) is carried forth by alternative, and objectives, standards, and guidelines would be applied with this emphasis as a basis for overall management expectations.

Rule Sets for Management Activity Levels by Cluster and Alternative

Table of Contents

SIT

- A. Developed individual integrity/departure ratings for forest, range, aquatic, and hydrologic layers based on individual 4th field HUCs.
- B. As a result of individual integrity/departure layers, developed an integrated integrity layer for Forested lands and one for Rangelands resulting in combinations or “clusters” of 4th field HUCs. This resulted in: 6 Forest clusters and 6 Range clusters

EIS Team Tables

- 1. **Summary table** ~ key variables summarizing differences among **Forest** Clusters
- 1R. **Summary table** ~ key variables summarizing differences among **Range** Clusters
- 2. **Activity level Assumptions** ~ used to equate H, M, L Activity levels to a “% of **forested** area treated” (calibrated to activity levels in Alternative 1 - No Action.)
- 2R. **Activity level Assumptions** ~ used to equate H, M, L Activity levels to a “% of **rangeland** area treated” (calibrated to activity levels in Alternative 1 - No Action)
- 3. **Road “density class” calculations** ~ an intermediate step used to determine what magnitude of road closures would be required to effect a change between road density classes.
Note: this applies to both Forest and Range Clusters
- 4. **Activity Levels** ~ applying H, M, L management activity levels to each **Forest** Cluster by Alternative (based on the theme of the alternative and the condition and characteristics of the cluster.)
- 4R. **Activity Levels** ~ applying H, M, L management activity levels to each **Range** Cluster by Alternative (based on the theme of the Alternative and the condition and characteristics of the cluster)
- 5. **Alternative 5 “Priority Management Areas”** ~ assigning a primary and secondary management priority of Timber, Livestock, Recreation, Aquatics, or Wildlife to each Forest and Range Cluster
- 6. **Rule Sets** ~ a repeatable process used to combine the H, M, L activity levels (from table 2) into a “General Management Emphasis” (Conserve, Restore, Produce) for each **Forest** Cluster for each Alternative
- 6R. **Rule Sets** ~ a repeatable process used to combine the H, M, L activity levels (from table 2R) into a “General Management Emphasis” (Conserve, Restore, Produce) for each **Range** Cluster for each Alternative
- 7. **Overall Management Strategy by Alternative** ~ a summarization of general management emphasis by **Forest** Cluster (used to generate alternative maps)
- 7R. **Overall Management Strategy by Alternative** ~ a summarization of general management emphasis by **Range** Cluster (used to generate Alternative maps)
- 8. **Conversion from “%” to “acres”** ~ used to convert from “% of **forested** area treated” (per decade) for H, M, L activity levels in Table 2 to “acres treated” (in thousands per decade) for H, M, L activity levels. (Used to generate the Management Activity tables in Chapter 3 of the DEIS)
- 8R. **Conversion from “%” to “acres”** ~ used to convert from “% of **rangeland** area treated” (per decade) for H, M, L activity levels in Table 2R to “acres treated” (in thousands per decade) for H, M, L activity levels. (Used to generate the Management Activity tables in Chapter 3 of the DEIS)

Table 1. Summary of Forest Clusters in the Project Area

Variable	Forest Cluster (%)					
	1	2	3	4	5	6
BLM/Forest Service-administered Forestlands	80 83	86 81	40 70	58 88	50 53	35 48
Forested Vegetation Groups						
Dry Forest	16	37	35	18	81	51
Moist Forest	27	27	52	73	11	21
Cold Forest	57	36	13	9	8	28
Road Density Classes						
Low or none	85	62	32	20	22	36
Moderate or higher	15	38	68	80	78	64
Fire frequency change	37	60	66	51	60	60
Fire severity increase	36	50	57	47	35	36
High wildland/urban fire interface risk	0	17	6	1	29	10
Moderate wildland/urban fire interface risk	29	61	36	13	30	23
Forest Integrity						
Low	0	10	67	86	79	59
Moderate	0	43	33	10	21	17
High	100	47	0	4	0	24
Aquatic Integrity						
Low	5	0	8	54	52	87
Moderate	38	59	85	46	44	13
High	58	41	7	0	4	0
Hydrologic Integrity						
Low	0	4	47	12	39	76
Moderate	4	30	49	54	41	17
High	96	66	4	34	20	7
Composite Ecological Integrity						
Low	0	0	4	83	96	100
Moderate	0	3	96	17	4	0
High	100	97	0	0	0	0

Source: ICBEMP GIS data (converted to 1 km² raster data).

Table 1R. Summary of Range Clusters in the Project Area

Variable	Range Cluster (%)					
	1	2	3	4	5	6
BLM/Forest Service-administered Rangelands	36	81	44	5	75	55
	54	5	6	29	65	59
Rangeland Vegetation Groups						
Dry Rangeland	49	34	17	30	61	61
Cool Rangeland	34	8	8	3	27	11
Other	17	58	75	67	12	28
Road Density Classes						
Low or none	20	71	30	62	64	30
Moderate or higher	80	29	70	38	36	70
Cropland/pasture	9	3	14	56	5	17
<12" annual precipitation	23	1	2	51	33	38
Fire frequency change	37	51	67	17	24	17
Fire severity increase	18	47	49	13	16	9
High wildland/urban fire risk interface	32	7	12	0	6	8
Moderate wildland/urban fire risk interface	10	59	33	4	58	39
Change in juniper woodland	+12	0	0	0	0	0
Range Integrity						
Low	100	6	76	100	26	79
Moderate	0	37	15	0	50	21
High	0	57	9	0	24	0
Aquatic Integrity						
Low	39	4	43	84	37	79
Moderate	61	24	50	16	57	18
High	0	72	7	0	6	3
Hydrologic Integrity						
Low	34	6	49	100	7	44
Moderate	66	16	35	0	35	34
High	0	78	16	0	58	22
Composite Ecological Integrity						
Low	100	0	58	97	8	80
Moderate	0	3	32	3	63	20
High	0	97	10	0	29	0

Source: ICBEMP GIS data (converted to 1 km² raster data).

Table 2. Forest Cluster Activity Level Assumptions

		Low	Moderate	High
Harvest (commercial) (% of all forested area treated/decade)	Alts. 1,2,7 > Alts. 3-6 >	0-4 5-9	0-5 8-10	4-8 9-11
Thin (pre-commercial) (% of all forested area treated/decade)		0-3	3-6	6-8
Decrease Road Density (% of native surface road miles reduced/decade)		0-25	25-50	50+ changes road density class
Watershed Restoration (% of all forested area treated/decade)		0-3	3-6	6-8
Prescribe Burning (% of all forested area treated/decade)		0-5	5-9	9-11
Prescribed Fire Plans (% of all forested area for which plans have been implemented)		0-20	20-40	40+

Harvest: All commercial harvest methods (e.g. single tree selection, group selection, shelterwood, seed tree, overstory removal, clearcut, and commercial thinning from above or below)

Thin: All pre-commercial thinnings used to alter forest structure, species composition, density, rate of growth, fuel ladders, fire behavior, etc.

Decrease Road Density: Permanent closure of native surface roads.

Watershed Restoration: Includes increased road maintenance, improved road condition (surface and/or drainage), reduced road related erosion, road obliteration, road de-commissioning, increased LWM, riparian plantings, in-channel restoration, etc.

Prescribed Burning: Management ignited fire.

Prescribed Fire Plan: Allows natural ignition fires to burn when in prescription and/or identifies areas that require prescribed burning.

Table 2R. Range Cluster Activity Level Assumptions

	Low	Moderate	High
Livestock Management (% of all rangeland with improved management)	0-6	6-12	12-20
Improve Rangelands (% of all rangeland treated/decade)	0-4	4-8	8-11
Decrease Road Density (% of native surface road miles reduced/decade)	0-25	25-50	50+ changes road density class
Riparian Restoration (% of all riparian areas treated/decade)	0-25	25-50	50-75
Prescribed Burning (% of all rangeland treated/decade)	0-3	3-6	6-9
Prescribed Fire Plan (% of all rangeland for which plans have been implemented)	0-20	20-40	40+

Livestock Management: A summation of livestock management variables that affect rangeland health, including grazing systems, changing riparian grazing management, season of use (length and timing), number of head, change of class, distribution, grazing deferment, and herding.

Improve Rangelands: Capital Investments: fencing, stockwater improvements, seedings, control of invasion or spread of exotics, and non-fire shrub and juniper control.

Decrease Road Density: Permanent closure of native surface roads.

Riparian Restoration: Includes improving road condition (drainage and/or surface), riparian plantings, in-channel restoration, and riparian exclosures.

Prescribed Burning: Management-ignited fire.

Prescribed Natural Fire: Allows natural ignition fires to burn when in prescription and/or identifies areas that require prescribed burning.

Table 3. Changing Road Density Class¹

Class	Density (miles/ sq. mile)	Mean Density	Multiplier (between classes)	Percent of roads that would have to be closed to drop one density class.
None	0 - .02	.006	10	90
Very Low	.02 - .1	.06	7	80
Low	.1 - .7	.4	3	70
Moderate	.7 - 1.7	1.2	2.5	60
High	1.7 - 4.7	3.2	2	50
Extreme	4.7+	6		

¹Calculations depicting the percent of road closures necessary to effect a change in road density class.

Table 4. Activity Levels By Forest Cluster by Alternative

Action	1	2	3	Alternative 4	5	6	7
Forest Cluster 1							
Harvest	L	L	L	L	L	L	L
Thin	L	L	L	L	L	L	L
Decrease road density	L	L	L	L	L	L	L
Watershed restoration	L	M	M	M	M	M	L
Prescribed burning	L	L	M	H	L	M	L
Prescribed fire plans	H	H	H	H	H	H	H
Alternative 5 Management Priority: Primitive Recreation/Aquatics							
Forest Cluster 2							
Harvest	M	L	L	L	L	L	L
Thin	L	L	L	M	L	M	L
Decrease road density	L	L	M	M	L	M	M
Watershed restoration	L	M	M	H	M	M	L
Prescribed burning	L	L	M	H	M	M	L
Prescribed fire plans	H	H	H	H	H	H	H
Alternative 5 Management Priority: Aquatics/Recreation							
Forest Cluster 3							
Harvest	H	M	M	M	M	L	L
Thin	M	L	M	H	H	M	L
Decrease road density	L	L	M	M	M	H	H
Watershed restoration	L	M	M	M	M	M	L
Prescribed burning	L	L	M	M	M	M	M
Prescribed fire plans	L	L	L	M	M	M	H
Alternative 5 Management Priority: Aquatics/Timber							
Forest Cluster 4							
Harvest	H	M	M	M	H	M	L
Thin	M	M	H	H	H	H	L
Decrease road density	L	L	M	M	L	M	M
Watershed restoration	L	L	L	M	L	M	L
Prescribed burning	L	L	L	M	L	M	M
Prescribed fire plans	L	L	L	M	L	M	M
Alternative 5 Management Priority: Timber/Wildlife							
Forest Cluster 5							
Harvest	H	L	M	M	M	L	L
Thin	M	M	H	H	H	H	M
Decrease road density	L	M	H	H	M	M	H
Watershed restoration	L	L	L	M	M	M	L
Prescribed burning	L	L	M	H	M	H	L
Prescribed fire plans	L	L	M	H	H	H	M
Alternative 5 Management Priority: Timber/Livestock							
Forest Cluster 6							
Harvest	M	L	L	L	M	L	L
Thin	L	L	H	H	M	H	L
Decrease road density	L	L	L	M	L	L	L
Watershed restoration	L	L	L	L	L	L	L
Prescribed burning	L	L	M	M	M	M	M
Prescribed fire plans	L	L	M	M	L	M	M
Alternative 5 Management Priority: Wildlife/Recreation							

Table 4R. Activity Levels by Range Cluster By Alternative

Action	1	2	3	Alternative 4	5	6	7
Range Cluster 1							
Livestock management	L	M	M	M	L	M	H
Improve rangelands	L	L	M	M	L	M	L
Decrease road density	L	L	L	H	M	M	M
Riparian restoration	L	L	L	M	L	M	L
Prescribed burning	L	L	M	H	M	H	M
Prescribed fire plans	L	L	M	H	H	H	H
Alternative 5 Management Priority: Livestock/Timber							
Range Cluster 2							
Livestock management	H	H	H	H	H	H	H
Improve rangelands	L	L	L	L	L	L	L
Decrease road density	L	L	L	L	L	L	L
Riparian restoration	L	L	L	M	L	M	L
Prescribed burning	L	L	M	H	M	M	L
Prescribed fire plans	H	H	H	H	H	H	H
Alternative 5 Management Priority: Recreation/Aquatics							
Range Cluster 3							
Livestock management	M	H	H	H	H	H	H
Improve rangelands	L	L	L	M	M	M	L
Decrease road density	L	L	L	M	L	L	M
Riparian restoration	L	M	M	M	L	L	L
Prescribed burning	L	L	M	H	M	M	L
Prescribed fire plans	L	L	M	H	M	H	H
Alternative 5 Management Priority: Recreation/Wildlife							
Range Cluster 4							
Livestock management	L	M	M	M	M	M	H
Improve rangelands	L	L	L	M	L	M	L
Decrease road density	L	L	M	M	L	M	M
Riparian restoration	L	L	L	M	M	M	M
Prescribed burning	L	L	M	M	L	L	L
Prescribed fire plans	L	L	L	M	L	M	M
Alternative 5 Management Priority: Wildlife							
Range Cluster 5							
Livestock management	L	M	M	H	M	H	H
Improve rangelands	L	L	M	M	L	L	L
Decrease road density	L	L	L	L	L	L	L
Riparian restoration	L	L	M	M	M	M	L
Prescribed burning	L	L	M	M	L	M	M
Prescribed fire plans	L	L	L	M	L	M	H
Alternative 5 Management Priority: Livestock/Recreation							
Range Cluster 6							
Livestock management	L	M	M	H	M	H	H
Improve rangelands	L	L	M	H	M	M	L
Decrease road density	L	L	L	M	L	M	M
Riparian restoration	L	L	M	M	M	M	M
Prescribed burning	L	L	L	L	L	L	L
Prescribed fire plans	L	L	L	L	L	L	M
Alternative 5 Management Priority: Livestock/Wildlife							

Table 5. Alternative 5 “Priority Management” Areas

	Primary Priority	Secondary Priority
Forest Cluster		
1	Primitive Recreation	Aquatics
2	Aquatics	Recreation
3	Aquatics	Timber
4	Timber	Wildlife
5	Timber	Livestock
6	Wildlife	Recreation
Range Cluster		
1	Livestock	Timber
2	Recreation	Aquatics
3	Recreation	Wildlife
4	Wildlife	-----
5	Livestock	Recreation
6	Livestock	Wildlife

Table 6. RULE SET - Process for combining Activity Levels into a “General Management Emphasis”, Forest Clusters

The following describes how “general management emphases” were established for the Forest clusters for each alternative based on the activity levels.

Management Emphasis (general emphasis applied to the “Cluster/Alternative theme” combination)

C	Conserve
C-R	Conserve/Restore
R	Restore
R-P	Restore/Produce
P	Produce
P-C	Produce/Conserve

The emphasis categories are assigned by the level of production (harvest) and restoration (thin, road density reduction, watershed restoration, prescribed burning) activities.

Management Emphasis	Harvest	Rule Set	Restoration Activities
C	Low		1 or less restoration activity > or = Mod
C-R	Low		2 restoration activities > or = Mod
R	Low or Mod		3 or more restoration activities > or = Mod
R-P	Mod or High		2 restoration activities > or = Mod
P	High		1 or less restoration activity > or = Mod
P-C	Mod		1 or less restoration activity > or = Mod

Table 6R. RULE SET - Process for combining Activity Levels into a “General Management Emphasis”, Range Clusters

The following describes how “general management emphases” were established for the Range clusters for each alternative based on the activity levels.

Management Emphasis (general emphasis applied to the “Cluster/Alternative theme” combination)

C	Conserve
C-R	Conserve/Restore
R	Restore
R-P	Restore/Produce
P	Produce
P-C	Produce/Conserve

The emphasis categories are assigned by the level of livestock management and restoration (rangeland improvements, road density reduction, riparian restoration, prescribed burning) activities.

Management Emphasis	Level of Livestock Mgmt.	Restoration Activities
C	High	1 or less restoration activity > or = Mod
C-R	High	2 restoration activities > or = Mod
R	Mod or High	3 or more restoration activities > or = Mod
R-P	Low or Mod	2 restoration activities > or = Mod
P	Low	1 or less restoration activity > or = Mod
P-C	Mod	1 or less restoration activity > or = Mod

Table 7. Overall Management Strategy by Alternative (Summarization of General Management Emphasis by Forest Cluster)

Forest Cluster	Alternatives						
	1	2	3	4	5	6	7
1	C	C	C-R	C-R	C	C-R	C
2	P-C	C	R	R	C-R	R	C
3	P	P-C	R	R	R	R	C-R
4	P	P-C	R-P	R	P	R	C-R
5	P	C-R	R	R	R	R	C-R
6	P-C	C	C-R	R	R-P	C-R	C

Table 7R. Overall Management Strategy by Alternative
(Summarization of General Management Emphasis by Range Cluster)

Forest Cluster	Alternatives						
	1	2	3	4	5	6	7
1	P	P-C	R-P	R	R-P	R	C-R
2	C	C	C	C-R	C	C-R	C
3	P-C	C	C-R	R	C-R	C-R	C
4	P	P-C	R-P	R	P-C	R	C-R
5	P	P-C	R	R	P-C	C-R	C
6	P	P-C	R-P	R	R-P	R	C-R

Table 8. Management Activity Levels in Forest Clusters, in Acres

HARVEST				
<u>Alternatives 1, 2 & 7</u>				
Forest Acres (x 1,000)	Forest Cluster	Acres (in the first decade)		
		Low 0-4%	Moderate 4-8%	High 8-10%
<i>in thousands</i>				
5,156	1	0 - 200	200 - 400	400 - 500
10,724	2	0 - 450	450 - 850	850 - 1,050
3,955	3	0 - 150	150 - 300	300 - 400
9,296	4	0 - 350	350 - 750	750 - 950
7,560	5	0 - 300	300 - 600	600 - 750
2,687	6	0 - 100	100 - 200	200 - 250
<u>Alternatives 3, 4, 5, & 6</u>				
Forest Acres (x 1,000)	Forest Cluster	Acres (in the first decade)		
		Low 0-5%	Moderate 5-9%	High 9-11%
<i>in thousands</i>				
5,156	1	0 - 250	250 - 450	450 - 550
10,724	2	0 - 550	550 - 950	950 - 1200
3,955	3	0 - 200	200 - 350	350 - 450
9,296	4	0 - 450	450 - 850	850 - 1000
7,560	5	0 - 400	400 - 700	700 - 850
2,687	6	0 - 150	150 - 250	250 - 300

Table 8. Management Activity Levels in Forest Clusters, in Acres (continued)

THIN				
Forest Acres (x 1,000)	Forest Cluster	Acres (in the first decade)		
		Low 0-3%	Moderate 3-6%	High 6-8%
		<i>in thousands</i>		
5,156	1	0 - 150	150 - 300	300 - 400
10,724	2	0 - 300	300 - 650	650 - 850
3,955	3	0 - 100	100 - 250	250 - 300
9,296	4	0 - 300	300 - 550	550 - 750
7,560	5	0 - 250	250 - 450	450 - 600
2,687	6	0 - 100	100 - 150	150 - 200

PRESCRIBED BURNING				
Forest Acres (x 1,000)	Forest Cluster	Acres (in the first decade)		
		Low 0-5%	Moderate 5-9%	High 9-11
		<i>in thousands</i>		
5,156	1	0 - 250	250 - 450	450 - 550
10,724	2	0 - 550	550 - 950	950 - 1,200
3,955	3	0 - 200	200 - 350	350 - 450
9,296	4	0 - 450	450 - 850	850 - 1,000
7,560	5	0 - 400	400 - 700	700 - 850
2,687	6	0 - 150	150 - 250	250 - 300

WATERSHED RESTORATION				
Forest Acres (x 1,000)	Forest Cluster	Acres (in the first decade)		
		Low 0-3%	Moderate 3-6%	High 6-8%
		<i>in thousands</i>		
5,156	1	0 - 150	150 - 300	300 - 400
10,724	2	0 - 300	300 - 650	650 - 850
3,955	3	0 - 100	100 - 250	250 - 300
9,296	4	0 - 300	300 - 550	550 - 750
7,560	5	0 - 250	250 - 450	450 - 600
2,687	6	0 - 100	100 - 150	150 - 200

Table 8R. Management Activity Levels in Range Clusters, in Acres

LIVESTOCK MANAGEMENT

Range Acres (x 1,000)	Range Cluster	Acres (in the first decade)		
		Low 0-6%	Moderate 6-12%	High 12-20%
		<i>in thousands</i>		
1,632	1	0 - 100	100 - 195	
103	2	0 - 6	6 - 12	12 - 20
107	3	0 - 6	6 - 12	12 - 20
32	4	0 - 2	2 - 4	
13,367	5	0 - 800	800 - 1600	1600 - 2670
14,640	6	0 - 880	880 - 1760	1760 - 2925

IMPROVE RANGELANDS

Range Acres (x 1,000)	Range Cluster	Acres (in the first decade)		
		Low 0-4%	Moderate 4-8%	High 8-11%
		<i>in thousands</i>		
1,632	1	0 - 65	65 - 130	130 - 180
103	2	0 - 5	5 - 10	
107	3	0 - 5	5 - 10	
32	4	0 - 5		
13,367	5	0 - 535	535 - 1070	1070 - 1470
14,640	6	0 - 585	585 - 1170	1170 - 1610

PRESCRIBED BURNING

Range Acres (x 1,000)	Range Cluster	Acres (in the first decade)		
		Low 0-3%	Moderate 3-6%	High 6-9%
		<i>in thousands</i>		
1,632	1	0 - 50	50 - 100	100 - 150
103	2	0 - 5	5 - 10	
107	3	0 - 5	5 - 10	
32	4	0 - 5		
13,367	5	0 - 400	400 - 800	
14,640	6	0 - 440	440 - 880	

RIPARIAN RESTORATION

Range Cluster	Acres (in the first decade)		
	Low 0-25%	Moderate 25-50%	High 50-75%
	<i>in thousands</i>		
1	0 - 10	10 - 20	
2	0 - 1		
3	0 - 1		
4	0 - 1		
5	0 - 65	65 - 135	
6	0 - 75	75 - 145	

